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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DANIELSEN, NATHAN ANDREW

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/766,583	<b>Applicant(s)</b> ISHII ET AL.	
	<b>Examiner</b> Nathan Danielsen	<b>Art Unit</b> 2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-17 are pending.

#### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Information Disclosure Statement***

3. The listing of references in the specification (see pages 2 and 3) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

#### ***Drawings***

4. Figures 3(B-1) and 3(B-2) should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

5. The disclosure is objected to because of the following informalities: the reference to "FIG. 6" on page 2 should be changed to --FIG. 5-- as there is no FIG. 6 in the application. Appropriate correction is required.

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6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Objections***

7. Claim 9 is objected to because "dispose" should be --disposed--. Claim 14 is objected to because the phrase "radially inwardly" is awkward. The examiner suggests that this be changed to -  
-radially inward--. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
10. Claim 9 recites the limitation "said shaft" in the last paragraph. There is insufficient antecedent basis for this limitation in the claim. Claims 10-16 are rejected as being dependent on an indefinite claim.
11. Claim 16 is indefinite because, in all figures, the *outer* part of the guide portion is parallel with the rotary axis of the rotary shaft. Further, the *inner* part of the guide portion is parallel with the rotary axis of the rotary shaft in figures 1-3(A-2) and 4(a) while it is non-parallel with the rotary axis of the rotary shaft in figure 4(b) only. For purposes of examination, "outer" will be interpreted to mean -  
-inner--.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Mukawa (US Patent 5,501,760).

Regarding claims 1, 9, and 17, Mukawa discloses a turntable comprising:

a turntable structure (figures 1, 2, 18, and 19) for receiving a disk, a rotary shaft (driving shaft

1 in figures 1 and 2) rotatable about a rotary axis for rotating said turntable structure,

a centering member movable in the rotary shaft direction for positioning the disk with respect

to the rotary shaft (centering segments 12 in figures 18 and 19); and

a guide portion on said turntable structure formed concentrically with respect to the rotary

shaft, said guide portion being pushed and elastically deformed by the centering

member during disk rotation and serves for guiding the centering member in the axial

direction (col. 12, line 55 through col. 13, line 36 and elastic member 12b in figures

18 and 19; where the term "formed concentrically" is interpreted to mean that the

guide portion(s) are formed at the same radial distance from the rotary shaft, as

shown by the combination of figures 1, 2, 18, and 19).

Regarding claims 2 and 10, Mukawa discloses where the rigidity of said guide portion is less than the rigidity of said centering member allowing for elastic deformation of said guide portion (col. 13, lines 26-36 and figures 18 and 19).

Regarding claim 3, Mukawa discloses where said guide portion has a thin part such that the rigidity of said thin part is reduced with respect to that of said centering member (col. 13, lines 26-36 and figures 18 and 19).

Regarding claim 4, Mukawa discloses where the material of said guide portion is softer than the material of said centering member thereby allowing for elastic deformation of said guide portion (col. 13, lines 11-14 and 26-36 and figures 18 and 19).

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Regarding claim 5, Mukawa discloses where said guide portion is formed from a resin and said centering member is formed from a metal (col. 7, lines 27-36 and col. 13, lines 11-14 and 26-36).

Regarding claim 8, Mukawa discloses where a gap is provided inside said guide portion (figures 18 and 19).

Regarding claim 13, Mukawa discloses where the centering member is made of a material which is harder than the material from which said guide portion is made (col. 7, lines 27-36 and col. 13, lines 11-14 and 26-36).

Regarding claims 14 and 15, Mukawa discloses where a space is provided radially inward of said guide portion and where the elastically deformed guide portion extends into said space (figures 18 and 19; where the deformation of elastic member 12b causes it to extend into the space).

Regarding claim 16, Mukawa discloses where said guide portion has an outer part having a surface which is non-parallel with said rotary axis (figures 18 and 19 and suggested by col. 13, lines 26-36).

#### ***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukawa.

Regarding claim 6, Mukawa discloses everything claimed, as applied to claim 4.

Additionally, Mukawa discloses where the centering member is made of a material which is harder than the material from which said guide portion is made (col. 7, lines 27-36 and col. 13, lines 11-14 and 26-36) and where the harder material is a polycarbonate (col. 7, lines 27-36; where it is well

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known that polycarbonates are forms of resin). However, Mukawa fails to explicitly disclose where said guide portion is formed of a material softer than said polycarbonate.

In the same field of endeavor, Mukawa discloses where any suitable elastic material, such as butyl rubber, may be used to construct the elastic member 12b, where a suitable elastic material would more flexible than the resilient fitting member 4 pressing against the elastic member 12b.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the guide portion of a softer material than the centering member, as taught by Mukawa, for the purposes of obtaining a sufficient thrust force and thus satisfactorily centering the disc on the turntable (col. 13, lines 26-36).

Regarding claim 7, Mukawa discloses everything claimed, as applied to claim 4. Additionally, Mukawa discloses where the centering member is made of a material which is harder than polycarbonate (col. 7, lines 27-36; where the harder material is a metal). However, Mukawa fails to explicitly disclose where said guide portion is formed of a material softer than said polycarbonate.

In the same field of endeavor, Mukawa discloses where any suitable elastic material, such as butyl rubber, may be used to construct the elastic member 12b, where a suitable elastic material would more flexible than the resilient fitting member 4 pressing against the elastic member 12b.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the guide portion of a material softer than polycarbonate, as taught by Mukawa, for the purposes of obtaining a sufficient thrust force and thus satisfactorily centering the disc on the turntable (col. 13, lines 26-36).

16. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukawa, in view of Eisemann (US Patent 4,484,321).

Regarding claim 11, Mukawa discloses everything claimed, as applied to claim 9. However, Mukawa fails to explicitly disclose where said guide portion has first and second parts, said first part being thinner than said second part.

In the same field of endeavor, Mukawa discloses where any the elastic member 12b may be constructed to have any shape that would suitably change its thrusting force, which would then include a thicker and a thinner part (col. 13, lines 26-36). Further, parts of differing thicknesses are suggested by the resilient flexure of hinge 12a of fitting member 4 in figures 18 and 19 and described in col. 13, lines 5-11.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the guide portion having parts of differing thicknesses, as taught by Mukawa, for the purposes of obtaining a sufficient thrust force and thus satisfactorily centering the disc on the turntable (col. 13, lines 26-36).

Alternatively, Eisemann discloses where said guide portion has first and second parts (top and bottom portions of outer limbs 25 of centering device 17 in figures 1 and 2, respectively), said first part being thinner than said second part (figures 1 and 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have divided the guide portion into thicker and thinner portions, as taught by Eisemann, for the purpose of optimally centering the disc on the turntable (col. 1, lines 34-37).

Regarding claim 12, Mukawa discloses everything claimed, as applied to claim 11. However, Mukawa fails to explicitly disclose where said guide portion has a terminating end, said thinner first part of said guide portion being juxtaposed to said terminating end.

In the same field of endeavor, Mukawa discloses where any the elastic member 12b may be constructed to have any shape that would suitably change its thrusting force, which would then include a thicker and a thinner part (col. 13, lines 26-36) arranged to have a terminating end as opposed to the cylindrical shape shown and suggested by figures 18 and 19.



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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the guide portion having parts of differing thicknesses and having a terminating end, as taught by Mukawa, for the purposes of obtaining a sufficient thrust force and thus satisfactorily centering the disc on the turntable (col. 13, lines 26-36).

Alternatively, Eisemann discloses where said guide portion has a terminating end (top portion of centering device 17 in figures 1 and 2), said thinner first part of said guide portion being juxtaposed to said terminating end (figures 1 and 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have divided the guide portion into thicker and thinner portions, where the thinner portions are located at upper terminating ends of the centering device, as taught by Eisemann, for the purpose of optimally centering the disc on the turntable (col. 1, lines 34-37).

#### ***Citation of Relevant Prior Art***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Iizuka (US Patent 6,208,613), Begley et al (US Patent 6,252,843), Yano et al (US Patent 5,555,233), Aldenhoven (US Patent 4,649,532), Mizukami et al (US Patent 4,705,279), Muto et al (JP Patent Application Publication 10-049977), and Minemoto (JP Patent Application Publication 04-216364) disclose various alternative structures for centering and holding an optical disc on a turntable.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 8:30 AM - 4:30 PM Eastern Time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A.L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathan Daniels *ND*  
08/22/2006

  
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